WHAT IS CLAIMED IS:

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1. An electron-emitting apparatus comprising:

an electron-emitting device including a first electrode, a second electrode that is provided so as to be insulated from the first electrode, and an electron-emitting film connected to the second electrode; and

an anode provided at a predetermined distance from the electron-emitting film,

wherein the first electrode, the second electrode, and the electron-emitting film oppose the anode,

a distance between the anode and the electron-emitting film is longer than a distance between the anode and the second electrode, and

a distance between the anode and the first electrode is longer than the distance between the anode and the electron-emitting film.

2. An electron-emitting apparatus according to Claim 1 further comprising a first voltage applying means for applying, to the anode, a potential that is higher than potentials applied to the first electrode and the second electrode.

3. An electron-emitting apparatus according to Claim 1 further comprising a second voltage applying means for applying a voltage between the first electrode and the second electrode.

4. An electron-emitting apparatus according to Claim 3,

wherein when electrons are emitted from the electron-emitting film, a potential applied to the first electrode is set so as to be at least equal to a potential applied to the second electrode.

5. An electron-emitting apparatus according to Claim 3,

wherein when no electrons are emitted from the electron-emitting film, a potential applied to the first electrode is set so as to be below a potential applied to the second electrode.

6. An electron-emitting apparatus according to Claim 1,

wherein the electron-emitting film includes carbon or a carbon compound.

7. An electron-emitting apparatus according to Claim 6,

wherein said carbon or said carbon compound includes at least one of diamond like carbon, graphite, diamond, a carbon nanotube, a graphitic nanofiber, and fullerene.

8. An electron source that is formed by arranging

a plurality of electron-emitting apparatuses of any one of claims 1 to 7 and emits electrons from at least one of the plurality of electron-emitting apparatuses according to an input signal.

9. An image-forming apparatus comprising:

the electron source of Claim 8; and

an image forming member on which an image is formed by irradiation with electrons emitted from the electron source.

10. An electron-emitting device comprising:

a first electrode arranged on a surface of a substrate;

an insulating layer arranged on the first electrode;

a second electrode arranged on the insulating layer; and

an electron-emitting film arranged on the second electrode,

wherein the second electrode has two side surfaces that oppose each other in a direction substantially parallel to the surface of the substrate, and the electron-emitting film is arranged so as to be shifted close to one of the two side surfaces.

11. An electron-emitting device according to

Claim 10,

wherein the electron-emitting film is an aggregate of fibers whose main ingredients are carbon.

12. An electron-emitting device according to Claim 11,

wherein each fiber whose main ingredient is carbon is one of a carbon nanotube and a graphite nanofiber.

13. An electron-emitting device according to Claim 11,

wherein each fiber whose main ingredient is carbon includes a graphene.

14. An electron-emitting device according to Claim 11,

wherein each fiber whose main ingredient is carbon includes a plurality of graphenes.

15. An electron-emitting device according to Claim 14,

wherein the plurality of graphenes are laminated in an axial direction of the fiber.

16. An electron-emitting device according to Claim 11,

wherein electrons are emitted from the electron-

emitting film when a potential applied to the first electrode is set so as to be at least equal to a potential applied to the second electrode.

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17. An electron-emitting device according to Claim 11,

wherein no electrons are emitted from the electron-emitting film when a potential applied to the first electrode is set so as to be below a potential applied to the second electrode.

18. An electron source in which are arranged a plurality of electron-emitting devices of any one of claims 11 to 17.

19. An image-forming apparatus comprising:
the electron source of Claim 18; and
a phosphor.

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